GOVERNMENT OF INDIA
RURAL DEVELOPMENT
LOK SABHA

UNSTARRED QUESTION NO:3713
ANSWERED ON:08.12.2016
Technology Developed by NIRD
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Will the Minister of RURAL DEVELOPMENT be pleased to state:

(a) the kind of construction technology developed by National Institute of Rural Development (NIRD) to support low cost housing and toilet development in rural areas;

(b) the means by which these technologies are shared with the ground level implementation agencies and village panchayats so that best practices can be adopted by villages;

(c) whether NIRD supports entrepreneurs in developing new technologies for rural areas and help them in commercialising the same; and

(d) if so, the details of such technologies which have been developed and commercialised?

Answer

MINISTER OF STATE IN THE MINISTRY OF RURAL DEVELOPMENT
(SHRI RAM KRIPAL YADAV)

(a) : The National Institute of Rural Development & Panchayati Raj (NIRD&PR) worked on various eco-friendly and cost effective building technologies in its Rural Technology Park for creating awareness of the said building technologies and constructed 14 model houses. The name of such structure/houses are (1) Stabilised Mud Block House Traditional House in Hot and Arid Gujarat, (2) Wattle and Daub Houses-Sikkim Typology, (3) Stone Masonry Houses-Himalayan Typology (Uttarakhand & Himachal Pradesh),(4) Stone Patti Houses-Traditional Houses in Hot and Arid Rajasthan, (5) Traditional Mud Houses-Karnataka Housing Typology(COB Technique) (6) Ferro-Cement Channel Construction-IAY Model House,(7) Brick Dome Structure-Panchayati Houses, (8) Jack Arch Unit-Rural shops,(9) Brick Panel House-(CBRI Roorkee Technology, (10)Rat Trap Bond Brick Work House, (11) Bamboo House-Traditional House in NE Regions, (12) Filler Slab Dwelling House, (13) Mud Block Structure with Sun Dried Mud Blocks-Top with Guna Conical Tyles & (14) Laterite Stone Construction(Goa, Maharashtra, Kerala, Karnataka, Deccan Peninsula. These models were constructed mainly based on the Dr. Laurie Baker Technologies.

Apart from above housing typologies twenty four (24) numbers of sanitation/toilet models were also constructed and displayed at Rural Technology Park namely (1) Conventional Model Based Septic Tank (2)Two pit latrine with flap seal pan and brick work, (3)Twin pit latrine with brick panel, (4)Twin pit latrine with pre-cast concrete blocks,(5) Circular twin pit toilet with bricks, (6)Circular twin pit toilet with pre cast RCC wings, (7)Bamboo mat ply super structure,(8) Bamboo reinforced leach pit, (9)Single leach pit toilet with P-trap pan,(10) Burnt clay segment leach pit, (11)Modified Midnapur toilet,(12) Eco Sanitation toilet, (13)Anganwadi toilet block, (14)School sanitation toilet & Urinal block, (15)Community toilet & Urinal block,(16) Soak pit for bathroom platform,(17) Spill water recycling model, (18)Household Vermin Compost Unit, (19)Nedep Compost Unit, (20)Deenbandhu Biogas Plant with toilet, (21)Gappi Fish Tank, (22)Ferro Cement Tank, (23)Waterless Urinal and (24)Bio-Toilet.

(b) : Housing Technologies developed at Rural Technology Park at NIRD&PR were shared with the ground level implementing agencies and village panchayats through various means such as screening of films, printed brochures, Books, trainees, educational institutions, Govt. Departments, Civil Engineering students, Practical trainings to the Masons/Self Help Groups/ Engineers, Hands on training and deploying engineering staff to the villages/panchayats wherever the works have been commenced.

(c) & (d): Yes Madam, The NIRD&PR through Rural Technology Park identifies and invites appropriate technology units/ entrepreneurs relevant for livelihoods to establish their units as production-cum-training on partnership basis. The training is given by the technology partners themselves, the trainees are able to get motivated for starting their enterprises with an objective to promote the innovations and to support commercialization. With the help of the technology unit partners, some technologies have been developed such as Vermi Compost, Natural Dye, Leaf Plate and Cups Making, Handmade paper conversion, Solar de-hydrator and freezing technologies and Solar mini lanterns. Identification of new technologies relevant for the rural areas, a group has been formed with eminent retired scientists under the banner 'Rural Technology Alliance.'

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